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## Inverse multiplexing

J Duncanson, AC Inc - IEEE Communications Magazine, 1994 - ieeexplore.ieee.org

... Inverse multiplexing Duncanson, J. Ascend Commun. Inc.; This paper ... 25.0. Abstract

Inverse multiplexing offers an approach to high-speed data networking that is different than many other currently fashionable network technologies. It ...

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## Adaptive inverse multiplexing for wide-area wireless networks

AC Snoeren - Global Telecommunications Conference, 1999. ... 1999 - ieeexplore.ieee.org

... Adaptive inverse multiplexing for wide-area wireless networks Snoeren, AC Lab. ... Inverse multiplexing is a standard application-transparent method used to provide higher end-to-end bandwidth by splitting traffic across multiple physical links, creating a single logical channel. ...

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## The past, present, and future of inverse multiplexing

PH Fredette - IEEE Communications Magazine, 1994 - csa.com

The past, present, and future of inverse multiplexing. PH ... 1994. Inverse multiplexing refers to the process of aggregating channels to allow applications greater freedom in selecting the optimum communication bandwidth and cost. ...

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## Generalized inverse multiplexing of switched ATM connections

FM Chiussi, DA Khotimsky, S ... . . . , 1998. GLOBECOM 98. . . . , 1998 - ieeexplore.ieee.org

... Generalized inverse multiplexing of switched ATM connections Chiussi, FM Khotimsky, DA Krishnan, S. Lucent Technol., AT&T Bell Labs., Holmdel, NJ ; This paper appears in: Global Telecommunications Conference, 1998. GLOBECOM 98. The Bridge to Global Integration. ...

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## [HTML] End-to-end inverse multiplexing for mobile hosts

L Magalhaes, R Kravets - Journal of the Brazilian Computer Society, 2001 - SciELO Brasil

This paper presents a framework for the creation of transport protocols for mobile hosts that use multiple link layers simultaneously for the same connection. This abstraction provides an end-to-end transport layer channel between two applications that do not have to be ...

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## [PDF] Performance of hashing-based schemes for internet load balancing

Z Cao, Z Wang, E Zegura - IEEE INFOCOM, 2000 - Citeseer

psu.

... II. RELATED WORK Load balancing has been used in telecommunication networks in the form of inverse multiplexing [4]. Inverse multiplexing al-lows service providers to offer wideband channels by combining multiple narrowband 56 kbps and 64 kbps trunks [5]. The load ...

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psu.

## [CITATION] Inverse multiplexing: Tailor made for ATM

J Frimmel - Telephony, 1996

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## [PDF] Making parallel packet switches practical

S Iyer, N McKeown - IEEE INFOCOM, 2001 - Citeseer

psu.

... Keywords--packet-switch; output-queueing; inverse-multiplexing; load-bal-ancing; Clos' network. ... The architecture as such is not novel and previous work [4][5][6][7][8] has described

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load-balancing or "**inverse-multiplexing**" [9][10][11][12] systems. ...

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### ATM inverse muxing for easier access

RD Langdon - Data Communications, 1997 - csa.com

... The use of asynchronous transfer mode (ATM) **inverse multiplexing** for easier access in networks is described. ATM **inverse multiplexing** takes traffic from a relatively high-bandwidth connection and spread it across multiple lower-speed wide-area networks. ...

Cited by 9 - Related articles

### [CITATION] Inverse Multiplexing for Wide-Area Wireless Networks

AC Snoeren - Proceedings of the IEEE Conference on Global ..., 1999

Cited by 7 - Related articles

### [PDF] Stability analysis of a parallel packet switch with bufferless input ...

psu.

DA Khotimsky, S Krishnan - ICC 2001, 2001 - Citeseer

... **Keywords**— **Inverse Multiplexing**, Multipath Switching Systems, Parallel Switch architectures. I. I INTRODUCTION **Inverse multiplexing** has long been known as a tech-nique to aggregate link bandwidth in the end-to-end en- ...

Cited by 54 - Related articles - View as HTML - All 5 versions

### [BOOK] Essentials of ATM networks and services

OC Ibe - 1997 - portal.acm.org

... These services include ATM LAN emulation, IP over ATM, multiprotocol over ATM, frame-based access services over ATM, audiovisual multimedia services over ATM, circuit emulation service, and **inverse multiplexing** over ATM. Most of these services are still being defined. ...

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### [PDF] A packet resequencing protocol for fault-tolerant multipath transmission with ...

psu.

D Khotimsky - GLOBECOM-NEW YORK-, 1999 - Citeseer

... Abstract A multipath switching system serves as a useful abstraction for achieving bandwidth aggregation by means of switched connection **Inverse multiplexing**. ... **Keywords**: **Inverse Multiplexing**, ATM Switches, Sequence control protocol. I. Introduction ...

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### Inverse multiplexing over ATM: broadband access for less

J van der Lande - COMPUT TECHNOL REV, 1998 - csa.com

**Inverse multiplexing** over ATM: broadband access for less. Justin ... 1998. **Inverse Multiplexing** over ATM (IMA) employs ubiquitous E1/T1 circuits to provide broadband network solutions more cost-effectively than other technologies. ...

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### [PDF] Striping within the network subsystem

CBS Traw, JM Smith - IEEE Network, 1995 - cs.uccs.edu

... higher level framing to compensate for the skew between the stripes which can result in a misordering of ATM cells [5]. One effort toward standardizing a particular application of network striping is presented by rredette [7]. He calls network striping **Inverse Multiplexing** when it is ...

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### [CITATION] ... MPEG-2 coded TV signal over SDH network with **inverse multiplexing** ...

N Linta, M Mihailovic, D Vuletic - 1999 - TELFOR

Cited by 2 - Related articles

UCCS

### [CITATION] Inverse Multiplexing

J Duncans - IEEE Communications Magazine, 1994

Cited by 2 - Related articles

### [CITATION] Inverse Multiplexing for ATM. Operation, Applications and Performance ...

M Aguilar, J Garcia, M Postigo - ICATM, 1999

Cited by 2 - Related articles

**[PDF] IP over DWDM**

R Jain - Nortel Networks, November, 1999 - Citeseer

... u Clock Synchronization u Rate Multiplexing/Traffic Grooming u Rate Division/**Inverse multiplexing**  
 u Fault Tolerance u Signal trace u Error Monitoring ... u Packet Switching Architecture u Protection  
 schemes u **Inverse multiplexing** for higher speed pipes u QoS u Multicast Page 11. ...

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**A study of the inverse multiplexing for ATM (IMA) protocol**

O Isnard, JM Calmel, AL Beylot, G ... - ... Switching and Routing, ..., 2000 - ieeexplore.ieee.org

... A study of the **inverse multiplexing** for ATM (IMA) protocol Isnard, O. Calmel, J.-M. Beylot,  
 A.-L. Pujolle, G. Nortel Networks-Wireless Solutions, Yvelines; This paper appears in:

High Performance Switching and Routing, 2000. ATM 2000. ...

Cited by 1 - Related articles

**[CITATION] Inverse multiplexing**

E Edvardsen - TELEKTRONIKK, 1999 - TELEDIREKTORATET

Cited by 1 - Related articles - BL Direct

**[CITATION] Guide to telecommunications transmission systems**

AA Huurdeman - 1997 - Artech House Publishers

Cited by 9 - Related articles

**[CITATION] Enterprise networking: fractional T1 to SONET, frame relay to BISDN**

D Minoli - 1993 - Artech House Publishers

Cited by 10 - Related articles - Library Search

**[PDF] On the speedup required for a multicast parallel packet switch**

S Iyer, N McKeown - IEEE Communications Letters, 2001 - Citeseer

... speedup of . Keywords-Clos' network; **inverse-multiplexing**; parallel packet switch;  
 load-balancing; multicasting. I. INTRODUCTION All packet switches require  
 memories that buffer packets during times of congestion. For ...

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**[PDF] Establishing wireless communications services via high-altitude ...**

HAA PLATFORMS - IEEE Communications Magazine, 1997 - comsoc.org

... telephone network (PSTN). The return signal path toward the airborne station is  
 similar, except for the **inverse multiplexing** operation in the mux and high-power  
 amplification by the HPA. HAAP-BASED COMMUNICATIONS ...

Cited by 178 - Related articles - View as HTML - BL Direct - All 6 versions

**IMA: technical foundations, application and performance analysis**

M Postigo-Boix, J Garcia-Haro, M Aguilar-Igartua - Computer Networks, 2001 - Elsevier

... E3 links. The technology to cover the gap between T1/E1 and T3/E3 bandwidth at  
 a reasonable cost is known as **inverse multiplexing** for ATM (IMA). IMA ... work. 2. **Inverse**  
**multiplexing** fundamentals and network applications. In a ...

Cited by 5 - Related articles - All 4 versions

**[PDF] A survey of active network research**

DL Tennenhouse, JM Smith, WD Sincoskie, DJ ... - IEEE communications ..., 1997 - Citeseer

... Early prototype applications include: software scalable bandwidth based on a general  
 mechanism for **inverse multiplexing**, ie, network striping; and support for an active  
 packet model ("Switchlets"). Bell Communications Research ...

Cited by 1514 - Related articles - View as HTML - BL Direct - All 52 versions

**Super-multichannel trans-selector systems for upgradable broadband networks**

Y Takasaki, T Sekiguchi, M Sasagawa, T ... - ... 1996, ICC '96, ..., 1996 - ieeexplore.ieee.org

... It is shown that the combined use of **inverse multiplexing** and rate adaptation can play an important  
 role in realizing very simple and economical super-multichannel trans-selectors: all signals are  
 converted to have a unified rate and, as a consequence, multiplexing and ...

Cited by 4 - Related articles - BL Direct

psu.

**[PDF] Supporting applications in a mobile multihop radio environment using route ...**

N Gogate, SS Panwar - IEEE International Conference on ... 1998 - Citeseer

... In general, traffic splitting could be done at any layer of the protocol stack, for example physical, data link, and network (eg **Inverse Multiplexing** is being standard- ized by ATM-PHY group in the ATM Forum). We will consider traffic splitting at the network layer and above. ...

Cited by 15 - Related articles - BL Direct - All 5 versions

**[PDF] Blocking probabilities for inverse multiplexer in public switched digital ...**

psu.

KV Vu, A Nilsson - GLOBECOM-NEW YORK-, 1995 - Citeseer

... To meet the new requirements, network providers use a technique called **inverse multiplexing** which combines two or more independent switched digital channels into a single high bandwidth end-to-end connection. ... **2 Inverse Multiplexing** . . . . .

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**An overview of Internet protocols**

A O'Neill, RC Tatham, SF Carter, G Tsirtsis, AJ ... - BT Technology ..., 1998 - Springer

... the layer 2 tunnelling protocol (L2TP). Multi-link PPP provides an **inverse multiplexing** capability in which multiple serial links are combined by the MP stack to look like a single high-speed link. MP controls the choice of which ...

Cited by 6 - Related articles - BL Direct - All 4 versions

**[PDF] Wireline broadband access networks**

telco

LA Ims - TELEKTRONNIKK, 1999 - telenor.com

... 75 Telektronikk 2/3.1999 ing, and is described in more detail in [3]. The main motivation behind **inverse multiplexing** lies in the fact that it may be a rather inexpensive way to avoid the high civil works costs of fibreoptic cable installation in the primary access network in particular. ...

Cited by 4 - Related articles - View as HTML - BL Direct

**Advanced frame recovery in switched connection inverse multiplexingfor ATM**

FM Chiussi, DA Khotimsky, S ... - ATM, 1999, ICATM'99, ..., 1999 - ieeeexplore.ieee.org

... Abstract Switched connection **inverse multiplexing** for ATM (SCIMA) has been proposed as a low-overhead scheme for implementing an N×N switch with a port rate of kR using a kN×kN core switch (or k N×N switches) having a port rate of R. By splitting the traffic of a small ...

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**[PDF] Analysis of a packet switch with memories running slower than the line rate**

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S Iyer - 2000 - Citeseer

... Essentially, the packet-switch performs packet-by-packet load-balancing, or "inverse-multiplexing" over multiple ... balancing" and "inverse-multiplexing" systems [3][4] have been around for some time, and this architecture is a simple extension of these ideas. ...

Cited by 119 - Related articles - View as HTML - BL Direct - All 13 versions

**Traffic performance of APON and SDH rings in a FTTCab configuration**

D Goderis, I Van de Voorde - Proceedings of the European ..., 2000 - books.google.com

... The first one is called **Inverse Multiplexing** for ATM (IMA) [4], The second strategy is based on Integrated SDH stream, ATM (ISAI) overlay networking [5]. IMA enables the transport of a high bitrate ATM cell stream onto a number of lower, rate physical links, eg E1 lines, or SDH VC, I2s. ...

Cited by 2 - Related articles

**[PDF] High-speed digital optical processing in future networks**

jstor

D Cotter, JK Lucek - Philosophical Transactions: Mathematical, Physical ..., 2000 - jstor.org

...  $2N + 2, \dots$ , and so on). However, this would lead to a complex **inverse multiplexing** problem at the receiving end in order to identify and compensate for the different propagation times of each physical link. In the case where ...

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**A reliable and scalable striping protocol**

psu.

H Adiseshu, G Parulkar, G Varghese - ... . Architectures, and Protocols ..., 1996 - portal.acm.org

... lines. Thus channel striping, also known as load sharing or **inverse multiplexing**, is often used in computer networks. ... The ATM Forum is considering a standard for ATM cell strip- ing called AIM ( ATM **Inverse Multiplexing**) basedon delay compen- sation. ...

[Cited by 147 - Related articles - BL Direct - All 16 versions](#)**[PDF] Dynamic Link Striping: Breaking the WAN Bandwidth Barrier in Piconets**

P Sharma, S Lee, J Brassil, J Lopez ... - Proceedings of LANI ... , 2001 - fog.hpl.hp.com  
 ... [6] T. Jessup, "Emerging Technology: Balancing Act: Designing Multi-Link WAN Services", Network Magazine, June 2000. <http://www.networkmagazine.com/article/NMG20000612S0008> [7] J. Ducasong, "Inverse Multiplexing". IEEE Communications Magazine, 32(4), April 1994

[Cited by 1 - Related articles - View as HTML - All 3 versions](#)

hp.c

**Implementing inverse multiplexing for ATM**

A Pires, M Semicond, O Kanata - ATM, 1999. ICATM'99. 1999 ..., 1999 - ieeexplore.ieee.org  
 ... Implementing inverse multiplexing for ATM Pires, A. Mitel Semicond., Kanata, Ont.;  
 This paper appears in: ATM, 1999. ICATM'99. 1999 2nd International Conference  
 on Publication Date: 1999 On page(s): 340-345 Meeting ...

[All 2 versions](#)**Broadband over Inverse Multiplexed xDSL Modems**[E Edvardsen - Lecture notes in computer science, 2000 - Springer](#)

... Inverse multiplexing of xDSL systems is used to aggregate bandwidths in the range of 100 to 1000 Mb/s between nodes in the network. ... Keywords: Inverse multiplexing, ATM, xDSL, twisted pairs, FSAN, ITUNET 1 Background ...

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**[HTML] End-to-end inverse multiplexing for mobile hosts**[I Luiz Magalhaes, R Kravets - J. Braz. Comp. Soc, 2001 - SciELO Brasil](#)

This paper presents a framework for the creation of transport protocols for mobile hosts that use multiple link layers simultaneously for the same connection. This abstraction provides an end-to-end transport layer channel between two applications that do not have to be ...

[Related articles - Cached](#)**[CITATION] Inverse Multiplexing of IS95 Traffic for Video Transmission**[M Salmanian - 1997 - Carleton University](#)[All 2 versions](#)**[CITATION] Inverse Multiplexing: Getting Started on the Road to ATM**[J Reedy - TELECOMMUNICATIONS-NORWOOD-NORTH ..., 1995 - BPA INTERNATIONAL](#)[BL Direct](#)**Telemetry transmission using inverse multiplexing and asynchronous transfer ...**[B Eslinger, J McCombe - INT TELEM CONF PROC, 1997 - csa.com](#)

Telemetry transmission using inverse multiplexing and asynchronous transfer mode(ATM). ... The combination of ATM and inverse multiplexing allows telemetry data rates above 1.5 Megabits per second (Mbps) to be transmitted over multiple T1 (1.544 Mbps) lines. ...

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core

**[CITATION] ... MULTIPLEXING: TAILOR-MADE FOR ATM-Inverse multiplexing fills ...**[J Frimmel - Telephony, 1996 - Chicago, USA: Chambers-McMeal ...](#)**[PDF] The telco's goldmine—50 Mb/s to the general public over the local telephone ...**[E Edvardsen - Flexible Working - New Network Technologies, 1999 - cordis.lu](#)

... The existing network is sub-divided into a small cell network, each covering an area with an approximate radius of 1 kilometre. Inverse multiplexing of xDSL systems is used to aggregate bandwidth in the range of 100 to 1000 Mb/s between nodes in the network. ...

[View as HTML - All 2 versions](#)**Remote Access Concepts and Techniques**[P Southwick - Local area network handbook, 1999 - books.google.com](#)

... This technique is generically called inverse multiplexing and can be performed in hardware as well as software. ... Remote Access Concepts and Techniques by most remote access devices, and it is by far the more common inverse multiplexing approach for remote access users. ...

[Related articles - All 2 versions](#)**Promptus Commun. Inc.**

PH Fredette - IEEE Communications Magazine, 1994 - ieeexplore.ieee.org

... The past, present, and future of **inverse multiplexing** Fredette, PH Promptus Commun. Inc.; ... Abstract Inverse multiplexing refers to the process of aggregating channels to allow applications greater freedom in selecting the optimum communication bandwidth and cost. ...**[CITATION] Framework for MPLS-Based Control of Optical SDH/SONET Networks**

E Mannie, EV Sharma, I Metanolia - IEEE Network, 2001

[Related articles](#)**[CITATION] The multiplexer reference manual**

G Held - 1992 - John Wiley &amp; Sons

**[CITATION] Data communication components: characteristics, operation, ...**

G Held - 1979 - Hayden Book Co.

All 2 versions

**[PDF] Experiments With Remote Visual Access & On-line Space Services**EA Kuijpers - EUROPEAN SPACE AGENCY-PUBLICATIONS-ESA ..., 1996 - Citeseer  
... teleoperation. The digital video data was generated by a Twyman-Green interferometer in the CPF. Using **inverse multiplexing** techniques, several ISDN lines were used in parallel for the remote operations project. This allowed ...

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... of digital imagery over multiple noisy channels. The proposed scheme divides the image into smaller parts that are transmitted over the individual channels of an **inverse multiplexing** system. The division or splitting is done in ...

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**[CITATION] NetNews: re-engineering the system**

D Fowler - netWorker, 1998 - portal.acm.org

... year. A number of vendors are introducing new ATM switches, including Cisco, 3Com and Ascend. One of the reasons for this upsurge is the new **Inverse Multiplexing** over ATM (IMA) Interoperability Initiative, or I3. Using I3 ...**[CITATION] Communications Architecture for Distributed Systems, RJ Cyp**

F Corr - IBM SYST J, 1978

**Image coding for transmission over multiple noisy channels using punctured ...**SS Channappaya, GP Abousleman, ... - Image Processing, ..., 2001 - ieeexplore.ieee.org  
... of digital imagery over multiple noisy channels. The proposed scheme divides the image into smaller parts that are transmitted over the individual channels of an **inverse multiplexing** system. The division or splitting is done in ...

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**Real broadband access over twisted-pair networks**

E Edvardsen - Proceedings of SPIE, 1998 - link.aip.org

... **Inverse multiplexing** of xDSL systems is used to aggregate bandwidth in the range of 100 to 1000 Mb/s between nodes in the network. ... **Inverse multiplexing** of xDSL systems is used to aggregate bandwidth in the range of 100 to 1000 Mb/s between nodes in the network. ...

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**Analysis of a packet switch with memories running slower than the line-rate**

S Iyer, A Awadallah, N McKeown - IEEE INFOCOM 2000. ..., 2000 - ieeexplore.ieee.org

... multiplexed) before departing from the system. Essentially, the packet switch performs packet-by-packet load-balancing, or "**inverse-multiplexing**" over multiple independent

packet switches. Each lower-speed packet switch, operates ...

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### SNMP management for ATM

GV Mouradian - Journal of Network and Systems Management, 1995 - Springer  
... of services such as the Available Bit Rate (ABR) service. Recently, work has started in the ATM Forum Physical layer work group to define a SNMP MIB for ATM Inverse Multiplexing. In the IETF, at least two other work groups ...

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[CITATION] ISCC 2000 Proceedings: Fifth IEEE Symposium on Computer and ...

S Tohmé, M Ulema - 2000 - IEEE

### Network Architectures and Performance

DE Sharp - Network design: principles and applications, 2000 - books.google.com  
... The three new ATM specifications approved by the ATM Forum in mid- 1997, Multiprotocol over ATM (MPOA), LAN Emulation (LANE), and Inverse Multiplexing over ATM (IMA), have opened additional networking areas to 426 Page 444. ...

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### A cooperative approach to user mobility

R Kravets, C Carter, L Magalhaes - ACM SIGCOMM Computer ..., 2001 - portal.acm.org  
... results in much higher throughput than TCP . The same **Inverse multiplexing** techniques can be extended from a single host to the multiple external interfaces of a MOPED. The same restrictions apply, namely that throughput ...

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### [PDF] Multi-Link Iridium Satellite Data Communication System

MA Jabbar - 2001 - Citeseer  
... Since the Iridium satellite system provides a low bandwidth that is not sufficient to support most of the data applications, **inverse multiplexing** technique is used to combine multiple satellite ...  
Multi-link point-to-point protocol is used to implement packet level **inverse multiplexing** ...  
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### [PDF] IP/ATM integrated services over broadband access copper technologies

A Azcorra, D Larabell, EJ Hernandez- - - IEEE Communications ..., 1999 - ituc3m.es  
... deployment of fiber are also underway. ACTS project AC309 ITUNET [15] is evaluating a full-copper solution employing **inverse multiplexing** of ATM over VDSL, together with statistical multiplexing. ITUNET splits a geographical area ...  
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### [PDF] Service Profile-Aware Control Plane: A Multi-Instance Fixed Point ...

VPN Granularity - 1999 - ittc.ku.edu  
... 100 8.3.3 ITU and SPA-Dedicated control plane model ..... 101 8.3.4 SPA-Shared- Static load partitioning and disabled **inverse multiplexing** (without NE, without IM)... 102 ...  
All 3 versions

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### MMTP: multimedia multiplexing transport protocol

L Magalhaes, R Kravets - ACM SIGCOMM Computer ..., 2001 - portal.acm.org  
Page 1. MMTP - Multimedia Multiplexing Transport Protocol Luiz Magalhaes and Robin Kravets Department of Computer Science University of Illinois, Urbana-Champaign 1304 W Springfield Avenue Urbana, IL 61801 {magalhae,rhk}@cs.uiuc.edu ...  
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RM White - 1998 - Citeseer  
Page 1. Implementing Distributed Packet Fair Queueing in a Scalable Switch Architecture by Donpaul C. Stephens Submitted to the Department of Electrical and Computer Engineering in partial fulfillment of the requirements for the degree of ...  
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**An architecture for packet-striping protocols**

A Han, G Varghese, G Panulkar - ACM Transactions on Computer ... , 1999 - portal.acm.org  
 ... The striping unit can be a bit or a byte or a bigger aggregation. Bit or byte interleaving is often done at the hardware level using devices known as inverse multiplex- ers. We discuss two hardware inverse multiplexing schemes in detail in the section on related work. ...

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**[PDF] Approximation to the CLR in ATM switches with multiserver output discrete ...**

M Aguilar, F Barceló, P Iserte - IFIP Workshop TC6, ATM'98, 1998 - Citeseer

Page 1. Sixth IFIP Workshop on Performance Modelling and Evaluation of ATM Networks, Ilkley, UK, 20-22 July, 1998. 63/1 Approximation to the CLR in ATM switches with multiserver output discrete queues and priority. Mónica ...

Cited by 4 - Related articles - View as HTML - All 3 versions

**Sandias network for SC97: Supporting visualization, distributed cluster computing, ...**

TJ Pratt, LG Martinez, MO Vaile, TV Archuleta, VK ... - 1998 - osti.gov

... The current routing protocols allow for some parallelism to provide load balancing and redundancy across multiple physical paths. In the future, these routing protocols will also provide some **inverse multiplexing** capabilities. ...

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**The integration of ISDN into a multi-functional visual communications network**

R Beckwith - ISDN: applications in education and training, 1994 - books.google.com

... level of technology. Videoconferencing needs expensive and/or proprietary codecs and/or channel **inverse multiplexing** techniques. Another problem is that large image files still take a long time to transmit. Primary Rate ISDN ...

Related articles - All 2 versions

**[PDF] Systems Aspects of APON/VDSL Deployment**

L Verpoorten, A Granger, A Telecom - IEEE Communications Magazine, 2000 - fie-epn.net

... Two techniques can be applied to improve statistical multiplexing on a SONET/SDH ring: **inverse multiplexing** for ATM (IMA) and integrated SDH-ATM (ISA) [8]. IMA enables the transport of a high-bit-rate ATM cell stream onto a multiple of lower-bit-rate SONET/SDH VCs (eg, n ...

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**Convergence of IP Based and Optical Transport Networks**

A Lason, A Manzalini, G Chatzilias, L Raptis, D ... - Lecture notes in ..., 2000 - Springer

... considered as to the bandwidth management of leased OChs. This special service might be offered when the **inverse multiplexing** of OTN, eg, OCh virtual concatenation is available. Different potential ways to set-up OCh services ...

BL Direct - All 6 versions

**Interworking between SDH and OTN-based transport networks**

A McGuire, AJ Flavin - BT Technology Journal, 2001 - Springer

... considered. The following sections elaborate on how OTN modem functionality can be achieved by means of a new mapping that utilises the SDH variant of **inverse multiplexing** — virtual concatenation. 4. Concatenation SDH ...

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**[PDF] Lightwave Micromachines for Optical Networks: Vast Promise Amid Vaster ...**

E Goldstein, L Lin, JA Walker - Optics & Photonics News, 2001 - jaywalkertc.com

... These systems provision and mesh-restore wavelengths at a granularity of 155 Mb/s to 2.5 Gb/s. They also provision and mesh-restore 10-Gb/s wavelengths via **inverse multiplexing** down to the basic switch rate, with the capability of grooming such sub-rate signals within a ...

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**Routing in Packet-Switched Networks Using Path-Finding Algorithms**

S Murthy - 1996 - Storming Media

Page 1. University of California Santa Cruz Routing in Packet-Switched Networks Using Path-Finding Algorithms A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy in Computer Engineering by Shree Murthy September 1996 ...

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J Berrocal - IEEE Communications Magazine, 1999 - comsoc.org

... underway. Advanced Communications Technologies and Systems (ACTS) project AC309, ITUNET [10], is evaluating a full-copper solution employing **inverse multiplexing** of ATM over VDSL, together with statistical multiplexing. ...

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[\[PDF\] ENGINE access ramp- the next-generation access architecture](#)

eric

JÖ Andersson, P Linder - ERICSSON REV(ENGL ED), 2000 - ericsson.com

... If even greater capacity is needed, dense wavelength-division multiplexing (DWDM) can be introduced. Initially, in the absence of fiber, various solutions for transport over copper can be applied, including T1, E1, E3, DS3, and **inverse multiplexing**. ...

All 7 versions

[\[PDF\] Communications technologies in collaborative design](#)

mit.e

JR Williams - 1997 - dspace.mit.edu

Page 1. Communications Technologies in Collaborative Design by Dennis R. Shelden BSAD, Massachusetts Institute of Technology '88 Submitted to the Department of Civil and Environmental Engineering in partial fulfillment of the requirements for the degree of ...

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[\[PDF\] ATM for Naval Applications](#)

argr

J Airst, D Aschkenasy, DL ... - MILCOM 1999; IEEE ..., 1999 - argreenhouse.com

... Approved 2/99 **Inverse Multiplexing** over ATM (IMA) V1.1 af-phy- 0086.001 Combines multiple T1's into an aggregate output. Approved 4/99 PNNI Mobility Extensions V1.0 af-ra-0123.00 Reroutes connections as the user transitions satellite spot beams or base stations. ...

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